



September 20, 2001

D. Wayne Hedberg
Permit Supervisor
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, UT 84114-5801

RE: Revision of M/037/084 - Papoose Limestone Mine
San Juan County

Dear Mr. Hedberg:

Cotter Corporation plans to expand our Papoose Limestone Mine located in San Juan County. We have, at present, exhausted our permitted reserves and wish to add about 28.5 more acres in a continuing southeasterly direction from the present pit.

The enclosed "Notice of Intention to Revise Mining Operations", should be self explanatory when combined with our previous application and mine plan. All maps and exhibits which required revision are here enclosed.

Mr. John Blake at State Lands has been sent a copy of the submittal and all other leaseholders have been sent letters of notification of our intention. Since our basic plan of operation is unchanged, we have not contacted the Divisions of Air or Water Quality.

We previously, this year, filed for an exploration permit (E/037/094) and included the proposed expansion area for the required cultural survey which is also enclosed.

If you have any questions or comments, please contact me at Cotter's Nucla, Colorado office, P.O. Box 700, 81424 or call 970-864-7347.

Sincerely,
COTTER CORPORATION

Jon Showalter
Project Geologist

JS/tlm
limdogm9.js

RECEIVED

SEP 26 2001

DIVISION OF
OIL, GAS AND MINING

FOR DOGM USE ONLY:

File #:(M/S) M / 037 - 184 ()
Approved: (mm/dd/yy) / /
Bond Adjustment: (\$)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
Telephone: (801) 538-5291 Fax: (801) 359-3940

RECEIVED

SEP 26 2001

DIVISION OF
OIL, GAS AND MINING**NOTICE OF INTENTION TO REVISE MINING OPERATIONS**

When an operator intends to revise a mining operation, a **Notice of Intention to Revise Mining Operations** shall be filed with the Division. The notice must include all information, concerning the revision, that would have been required if it had been included in the original Notice of Intention (NOI). Ideally, the revision application should be a "stand-alone" document and include all information necessary to conduct a complete review.

"REVISION" means a **significant change** to the approved Notice of Intention to Conduct Mining Operations, which will increase the amount of land affected or alter the location and type of onsite surface facilities such that the nature of the reclamation plan will differ substantially from the approved Notice of Intention. Revisions require a formal public notice of tentative approval and may require a change in the amount of reclamation surety.

"AMENDMENT" is an **insignificant change** to the approved Notice of Intention. An amendment requires Division approval, but does not require public notice.

The Division will determine whether a request for change is significant or insignificant on an individual case-by-case basis.

PLEASE NOTE: When applicable, reference to previously approved information contained in the original NOI can be used (identify volume #'s, section, page #, plate/map #'s, & date of submittal). If possible, please attach appropriate copies of the referenced material as part of the application for revision.

Where possible, please format the application to revise mining operations (e.g., text, maps, tables, figures, etc.) to allow direct insertion into the original NOI as replacement pages, or as a separate addendum to the approved NOI.

The operator is encouraged to use this form as a guide only. Please use extra sheets as necessary to complete each section that follows.

The following information must be included as part of the application to revise mining operations:

I. GENERAL INFORMATION (Rule R647-4-104)

1. **Name of Operator/Applicant:** Glen Williams, Manager - Western Slope Operations
2. **Name of Company/Corporation:** Cotter Corporation
3. **Address:** P.O. Box 700
Nucla, CO 81424
4. **Phone:** (970) 864-7347 **Fax:** (970) 864-7287
5. **Name of Mine/Project:** Papoose Limestone Mine
6. **Previously Assigned File Number:** (M) / / 037/ 084
*from original Notice of Intention (NOI)

7. **Location of Proposed Activities:**

COUNTY San Juan

TOWNSHIP 29½ S, RANGE 24 E,

SECTION(S) 36 (Identify to 1/4, 1/4 section)

NE¼ of NW¼
NW¼ of NW¼
SE¼ of NW¼
SE¼ of SW¼

SW¼ of NW¼
NE¼ of SW¼
NW¼ of SW¼
SW¼ of SE¼

8. **Ownership of Land Surface:**

Private (Fee) ☐ Owners Name(s): _____

State of Utah ☒ Public Domain (BLM) ☐ National Forest (USFS) ☐

9. **Ownership of Minerals:**

Private (Fee) ☐ Owners Names(s): _____

State of Utah ☒ Public Domain (BLM) ☐ National Forest (USFS) ☐

10. **Utah Mining Claim Number(s)** _____

11. **Utah State Lease Numbers(s)** ML 45609

II. MAPS, DRAWINGS & PHOTOGRAPHS (Rule R647-4-105)

Appropriate maps, drawings, plates, etc. should be provided that are pertinent to the revision, or amendment of mining operations. Please provide a revised map outlining the previously approved and the new proposed disturbed area boundaries. These materials should be prepared according to the requirements of Rule R647-4-105.

List map numbers or appendices used for this section: Revised Exhibits: B, F-1, F-2, F-3 & G
Attachment A, revised.

III. OPERATION PLAN (Rule R647-4-106)

Provide a narrative description, referencing any appropriate attached maps or drawings, of the pertinent details of the proposed change(s) in the operating plan. Specific details which are different from those described in the original approved NOI should be included. Identify additional proposed surface disturbance. Include the total number of acres to be affected by the revision or amendment. All appropriate information requirements as outlined under Rule R647-4-106 must be addressed in the application.

See II Mine Plan under A. Operation (attached)

The significant change is to extend the permitted area by the addition of 27 acres (MOL) to the southeast. This will bring the total acreage permitted to 47 acres (MOL). See Exhibit B (attached) and C. under II - Mine Plan.

V. IMPACT ASSESSMENT (Rule R647-4-109)

Please provide information as required under Rule R647-4-109 regarding projected potential surface and/or subsurface impacts which may be associated with the proposed change(s) in mining operations.

No changes.

See VI Impact Assessment of Mine Plan (attached)

V. RECLAMATION PLAN (Rule R647-4-110)

Describe how you intend to stabilize the disturbed areas upon cessation of operations. This includes backfilling excavations, grading, sloping or contouring, permanent stabilization of slopes or roads, permanent closure of roads, removal of structures and improvements, etc. Provide cross section of the proposed final contour of the land after reclamation.

Please outline any proposed changes to the originally approved reclamation plan. Appropriate sections of Rule R647-4-110 must be addressed as they may apply to the proposed change(s) in mining operations.

See VII Reclamation Plan of Mine Plan (attached)

The significant change is to add 27 acres MOL to the southeast end of the permit area. (see revised Exhibits F-1, F-2, and F-3, attached)

See attached "Recommended Revegetation Species List" (Exhibit G, revised)

VI. VARIANCE (Rule R647-4-112)

Please identify any requests for variance from the requirements of rules R647-4-107, -108, or -111. A narrative justification must also be included for each variance request. A discussion of any alternate methods or other mitigating measures should be included, if applicable.

No changes from initial variance.

See VII Reclamation Plan C. Variance, and revised Exhibits F-2 and F-3 (attached)

VII. SURETY (Rule 647-4-113)

Reclamation Surety:

Indicate whether the proposed activities will change the amount of work required to reclaim the minesite. If significant changes will result, then an itemized reclamation cost estimate should be provided (and attached) with direct reference to the specifics of the proposed change(s). This information will be used to assist the Division in determining any reclamation surety adjustments required for the operation.

Disturbed areas total 20 acres at the end of 2001. Future mining, at the current rate, should add 1.7 acres per year for 5 years equaling 8.5 acres for a total at the end of 2006 of 28.5 acres.

Reclamation methods will not change.

See attached reclamation cost estimate (Exhibit H) and revised Exhibits B, F-1, F-2, F-3, G and Attachment A.

VIII. SIGNATURE REQUIREMENT

The application for permit change must include a section similar to the following example:

I hereby certify that the foregoing is true and correct.

Glen Williams

Signature of Authorized Officer/Representative:

GLEN WILLIAMS

Name (Typed or Print):

Manager of Western Slope Operations

Title of Authorized Officer/Representative:

Date: Sept 20, 01

Limestone Mine Plan

September 20, 2001 - Page 1

I Overview

Cotter Corporation is conducting a large scale shallow open pit limestone mining operation in San Juan County. The present mine was upgraded from our initial small scale operation. The limestone deposit consists of the upper unit of the Pennsylvanian Hermosa Formation. The affected acreage is Utah State land which is controlled by a State Lease (ML-45609). Accordingly, the Division of State Lands and Forestry has been given a copy of this Amended/Revised mine plan. The proposed mine site lies at an elevation ranging from 6650 to 6740 feet sloping from 8-16% to the west toward an unnamed intermittent tributary of Big Indian Wash and southwest toward Big Indian Wash. The surface is 20-30% bare limestone and 70-80% is covered with a very thin layer (usually less than 6") of soil. The mine area is vegetated at a moderate density by mature piñon and juniper trees with very sparse small shrubs and grass understory.

Limestone is the only mineral product to be mined. Any of the sparse topsoil to be stripped will be stockpiled and used later for reclamation purposes. The only waste materials generated consist of undersized product and sand grains which are screened out following the crushing cycle and minor amounts of coarser material which are rejected due to quality (excessively weathered material, silica nodules, etc.) Much of the fine rejects will be used to surface the access road and storage area and potentially sold elsewhere for road base. A market for the coarse rejects, such as riprap use, will also be sought in order to minimize the amount of waste rock left at the mine site. Annual production is currently about 50,000 tons of limestone necessitating mining approximately 64,000 tons of rock per year.

II Mine Plan

A. Operation

The anticipated sequence for the mining operation will be as follows:

1. Trees and brush will be stripped, windrowed or piled with a bulldozer.
2. The thin, sporadic soil will be stripped and stockpiled.
3. Blast holes will be drilled with an air track drill. The drill machine will be supplied with a water injection system to prevent all but a very minute amount of dust to be produced.
4. Explosives will be loaded and the holes shot approximately two to three times per year. In accordance with MSHA regulations, any possible area of approach will be closed by barriers or fences

Limestone Mine Plan
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and be guarded during blasting. These fences and barriers will also hinder access to the highwall of the pit. It should be noted that the pit and highwalls are not expected to be more than 20 feet deep.

5. The broken rock will be mucked and trammed to the crusher by means of a rubber-tired loader.
6. Rock will be crushed and screened to a product size of minus 10" to plus $\frac{1}{2}$ ". This will require only a primary crushing operation employing a portable jaw crusher. Water spray devices will be used, as necessary, to minimize dust emissions during crushing. The particle size of the stockpiled material and any undersize reject pile should be large enough to preclude dust emissions due to wind. The undersize reject pile will be sprayed with water as necessary to control fugitive dust. Dust emissions will be regulated under Approval Order #DAQE-378-95 from the Utah Division of Air Quality.
7. The crushed product will be transported by conveyor or loader to the stockpile area. The equipment storage pad is of sufficient size (0.67 acre) to allow for truck turning and loading. The crushing and stockpile areas move southeastward, within the pit boundary, periodically as needed.

B. Access

Access to the mine site is off San Juan county road #370 (Lisbon Valley Road) approximately 1.3 miles southeast of the intersection with San Juan county road #306 (Big Indian Valley Road.) Approximately 460 feet of new access road 20 feet wide has been constructed in accordance with the encroachment requirements of the San Juan county road department engineer. A culvert of appropriate size has been installed to cross the drainage on the south side of County road #370. Construction of the remaining 425 feet of access road to the stockpile and mine area (885 ft. total access road) consisted of upgrading an existing old seismic exploration road, along with installation of two small culverts. The access road has been improved as needed. A dust suppressant will be applied as necessary to minimize the suspension of dust. The entire length of access road is located on the Utah State leased land. As a security measure, a gate has been installed on the northwest end of the mine area in order to deter access to the mine site by unauthorized persons.

Limestone Mine Plan
September 20, 2001 - Page 3

C. Acreage of Disturbance

The acreage disturbed by the existing operation is estimated to be:

A)	Access road	<u>Acres</u>
	1) new	0.16
	2) upgrade of existing road	0.20
B)	Equipment Storage Pad	0.67
C)	Topsoil Stockpiles	1.40
D)	Mine area and cleared area remaining	<u>17.57</u>
	Total number of acres presently disturbed	20.00
	Permit area remaining	<u>0.00</u>
	Total permitted area	20.00
	 Total new area to be permitted	 <u>27.00</u>
	Total area proposed for permitting	47.00

As an amendment in 1998, Cotter exchanged four acres on the southeast end of the then existing permit and added four acres to the southwest side to widen the pit (see Exhibit B dated January 2, 1998). Exhibit B (dated Sept 18, 2001) shows the newly proposed permit area.

D. Surface Facilities

When operations are in progress, a large truck van trailer with a control room, generator set and tool and lubricant storage room is on site. For security, this unit is moved to Nucla during extended periods of inactivity. A small camper trailer is always at the site which contains a portable toilet. A larger enclosed portable toilet may also be employed should on-site personnel requirements increase.

A fueling station has been established within a bermed and lined area to control spillage. (See Exhibit B)

E. Storm Water Control

During mining operations, the pit and crushing area will remain a sufficient distance east of the drainage to generally preclude the potential for sediment to enter surface waters of the state. Also, since the mining operation will be near the crest of the ridge, very little storm water runoff is anticipated to enter and subsequently exit the mine area. A catchment pond and a silt fence have been constructed below the pit area to minimize sedimentation from this area leaving the site and reaching the nearby drainage. Any storm water is

Limestone Mine Plan
September 20, 2001 - Page 4

regulated under Storm Water Permit No. UTR000257, issued by the Utah Division of Water Quality.

All mine-related trash will be removed from the property by the completion of the operation. In addition, activities will be conducted so as not to present fire hazards. Portable toilet facilities will be provided during periods of operation.

III Exploration/Development Drilling

Cotter Corporation will, from time to time, conduct core drilling operations. Should the proposed drilling lie outside the permitted area, we will file for an exploration permit with the division.

IV Site Access Controls and Other Lessee Notifications

As previously mentioned, barriers, such as windrows of stripped trees, fences, gate and signs will be used to deter entry to the mining area by the public and livestock during mining and later reclamation as necessary. The other lease holders of this parcel of state land have been notified of Cotter's intent and application for revision or amendment to permit # M/037/084. These other lessees (Paul D. Redd of Monticello, Utah - Grazing Permit; Gulf Production Corp. of Oklahoma City, ML48278 - Oil, Gas and Hydrocarbons lease and Robert Lufkin of Phoenix, Arizona, ML46678 - Metalliferous Minerals Lease) will be allowed access to the mining area if needed. None of the fences will be constructed in such a manner as to deny livestock access to existing watering places. There will be no other disturbance to any of the other surface resources on this State lease outside the 47 acres covered by this permit.

V Water Use & Hydrologic Regime

All water to be used in this operation is expected to be purchased from La Sal Livestock in La Sal, Utah and hauled to the mine site. No ground water has been encountered in the mining operation. Since the mine site is near the crest of the ridge, there is insufficient recharge area to contribute ground water to the area, especially at the shallow pit depths of 20 feet or less. Furthermore, the limestone is impermeable, so recharge would only be through joints and fractures. The underlying sandstone is poorly cemented and very permeable, thereby allowing infiltration, so no seeps are anticipated even at the base of the limestone bed.

Limestone Mine Plan
September 24, 2001 - Page 5

VI Impact Assessment

As previously stated, no adverse impacts are expected to surface or ground water regimes. Soil resources impacts will be addressed through the variance under "Reclamation Plan" (following) as are slope stability and erosion control. There have been no state or federal threatened and endangered species encountered and no potential impacts are expected. No cultural sites have, as yet, been encountered within either previously permitted area or the newly proposed area (see LAC Report 2001-27, attached).

VII Reclamation Plan

A. During Operation

Before any portion of the pit is abandoned, the highwall will be cut or backfilled with reject material to a slope of less than 1V:2H. The available top soil will be spread and scarified, then seeded with the attached seed mixture. (see exhibit G)

A few of the original trees will be scattered across any reclaimed areas.

The original plan called for concurrent final reclamation of unused portion of the permit. However, the need for extra space to stockpile different products and spare equipment was not fully anticipated. Consequently, Cotter had decided to continue only with backfilling fines material against the northeast highwall as an enhancement to future reclamation. As more space becomes available. Cotter may complete reclamation in small unused areas (see revised Exhibit F-2, attached).

B. Final

After mining operations cease and it is determined the access road and stockpile area are no longer needed (that is if the Utah Division of State Lands and Forestry does not want the road left in place) they will be reclaimed according to state reclamation standards.

Also, any remaining reject material resulting from sizing operations will be utilized during final reclamation for erosion control measures.

Limestone Mine Plan
September 20, 2001 - Page 6

C. Variance

As the mining operations advance to the southeast, less and less topsoil cover will be encountered. Due to this, Cotter Corporation requested a variance under rule R647-4-111. The reclamation plan (in areas of thin topsoil) will be to concentrate the available soils into "islands" or isolated areas to provide the necessary soil requirements for generation of vegetation. These "islands" will be evenly scattered throughout the mined area.

As indicated in the Large Mine Permit application (under III. Operation part 16, Vegetation) two transects using the Line Intercept method to survey cover averaged 24% rock/rock fragments. In some of the worst areas the topsoil may range between 1"-6" in thickness. When considering the rough nature of the limestone surface immediately underlying the topsoil, it may not be feasible to reasonably separate the minimal amounts of topsoil from the limestone as the mine advances to the southeast boundary of the permit area. Due to these difficulties, we may be lucky to create 12" thick "islands" on 5% of the reclaimed acreage. Even at this low estimate, we should manage a net gain in available grazeable vegetation when compared to the present conditions.

Berms and water bars may be placed, where needed, to prevent erosion during re-vegetation. This will also prevent sediment delivery to the nearby drainage. The land will thus be returned to the pre-mining use of livestock and wildlife grazing.

Attachment "A"

Cotter Corporation
Operator

Papoose
Mine Name

M-037-084
Permit Number

San Juan County, Utah

The legal description of lands to be disturbed is:

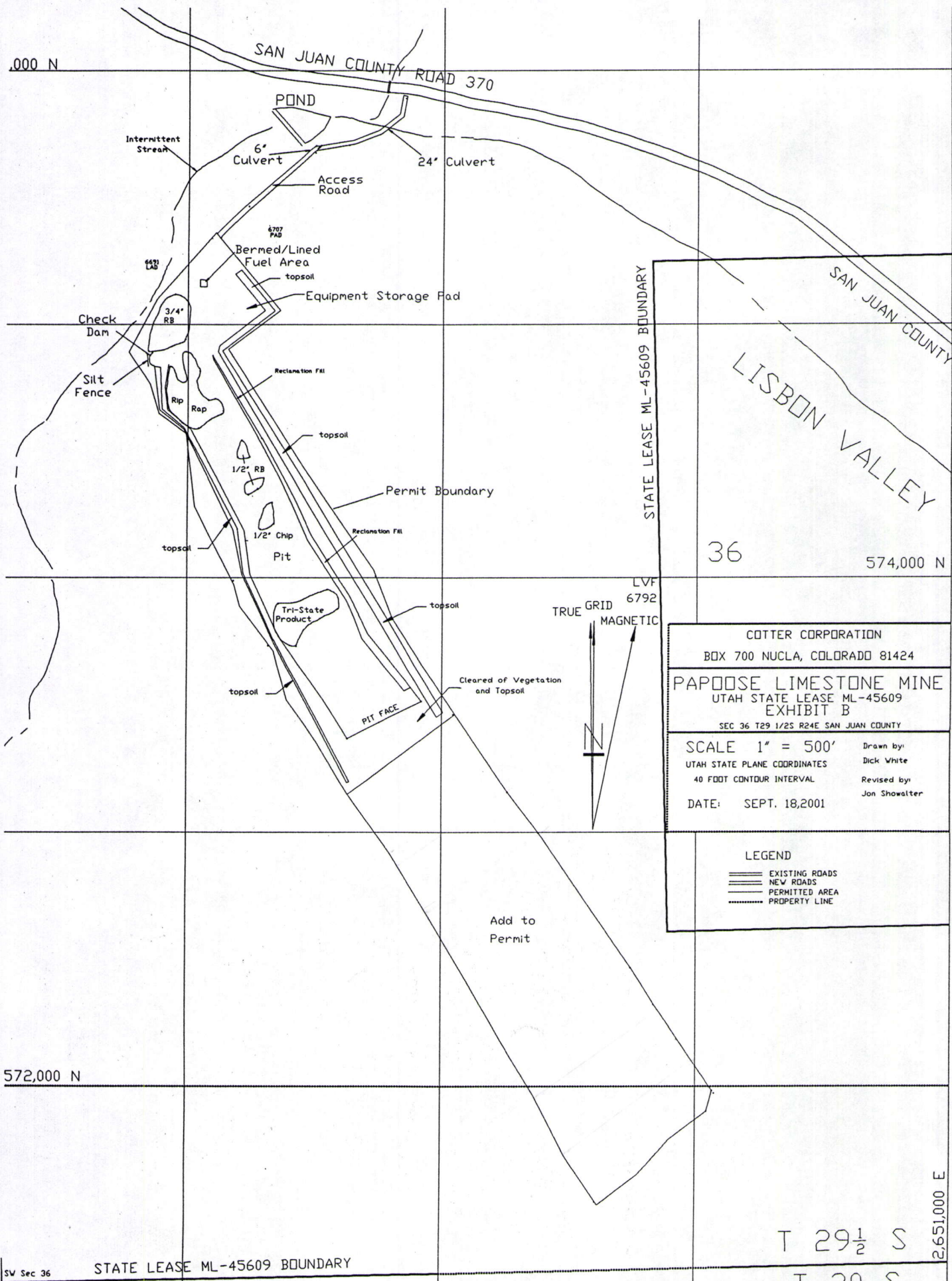
46.87 acres (MOL) within an area described:

Beginning at a point 1498 feet South 40° East of the Northwest corner of Section 36, Township 29½ South, Range 24 East, Salt Lake Principal Meridian, San Juan County, Utah;

thence 398 feet South 39°47' East;	thence 255 feet South 53°06' West;
thence 563 feet South 32°05' East;	thence 469 feet South 34°39' East;
thence 218 feet South 21°34' East;	thence 452 feet South 33°11' East;
thence 366 feet South 34°48' East;	thence 200 feet South 37°16' East;
thence 645 feet South 34°20' East;	thence 171 feet South 32°07' East;
thence 409 feet South 34°36' East;	thence 84 feet South 15°12' West;
thence 180 feet South 53°30' West;	thence 189 feet South 42°31' West;
thence 196 feet South 52°15' West;	thence 233 feet North 33°58' West;
thence 259 feet North 27°33' West;	thence 259 feet North 31°21' West;
thence 576 feet North 30°11' West;	thence 283 feet North 31°33' West;
thence 282 feet North 35°28' West;	thence 243 feet North 31°05' West;
thence 199 feet North 35°32' West;	thence 202 feet North 15°10' West;
thence 217 feet North 37°05' West;	thence 90 feet North 15°33' West;
thence 342 feet North 26°53' West;	thence 294 feet North 7°07' West;
thence 129 feet North 54°15' West;	thence 124 feet North 16°10' West;
thence 151 feet North 34°09' West;	thence 238 feet North 28°22' East;
thence 343 feet North 41°33' East;	the place of beginning.

In addition, an access road has been constructed and includes another 0.16 acres falling within an area 10 feet on either side of a centerline beginning 1513 feet South 40° East of the Northwest corner of Section 36, Township 29½ South, Range 24 East, Salt Lake Principal Meridian, San Juan County Utah;

thence 508 feet North 47° East; thence 164 feet North 81° East;
thence 112 feet North 67° East; thence 102 feet North 51° East,
thence 79 feet North 9° East, where the road connects to San Juan County Road 370.



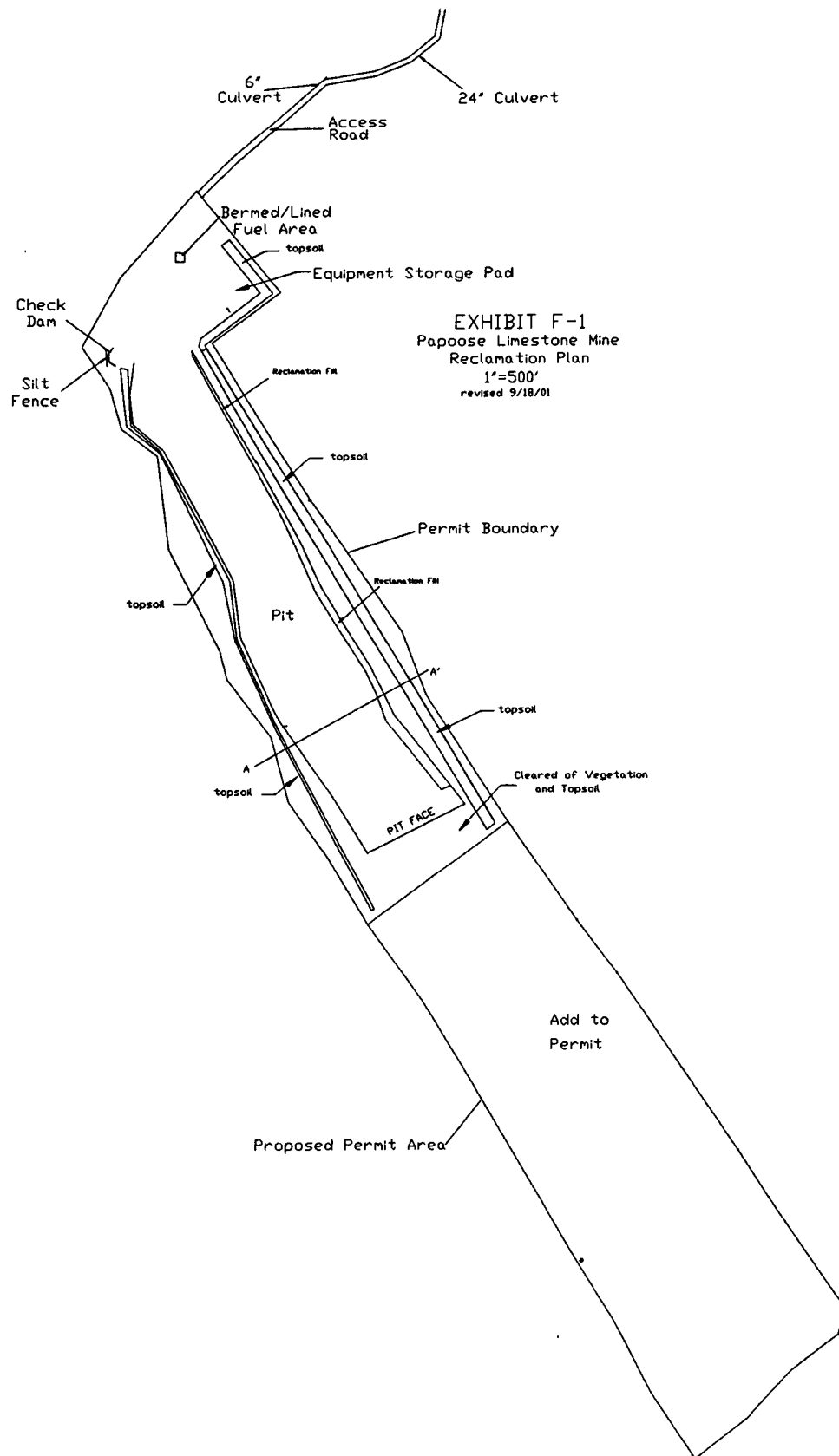


EXHIBIT F-2 Papoose Limestone Mine Reclamation Plan Cross-Section

1"=60'

Looking Northwest

revised 9/18/01

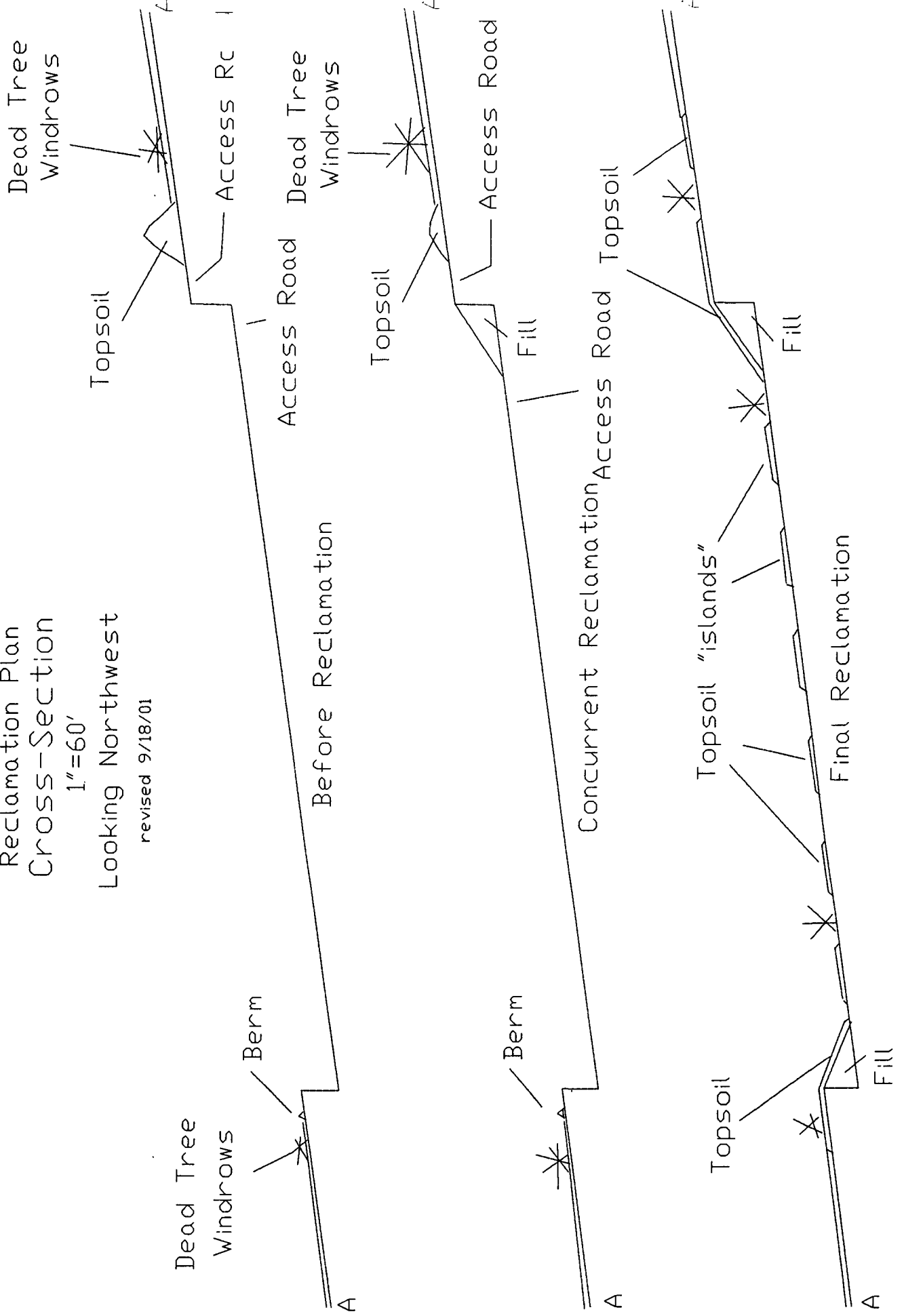


EXHIBIT F-3
Papoose Limestone Mine
Reclamation Plan
Final Reclamation Contours
1"=500'
revised 9/18/01

all contours
are diagrammatic

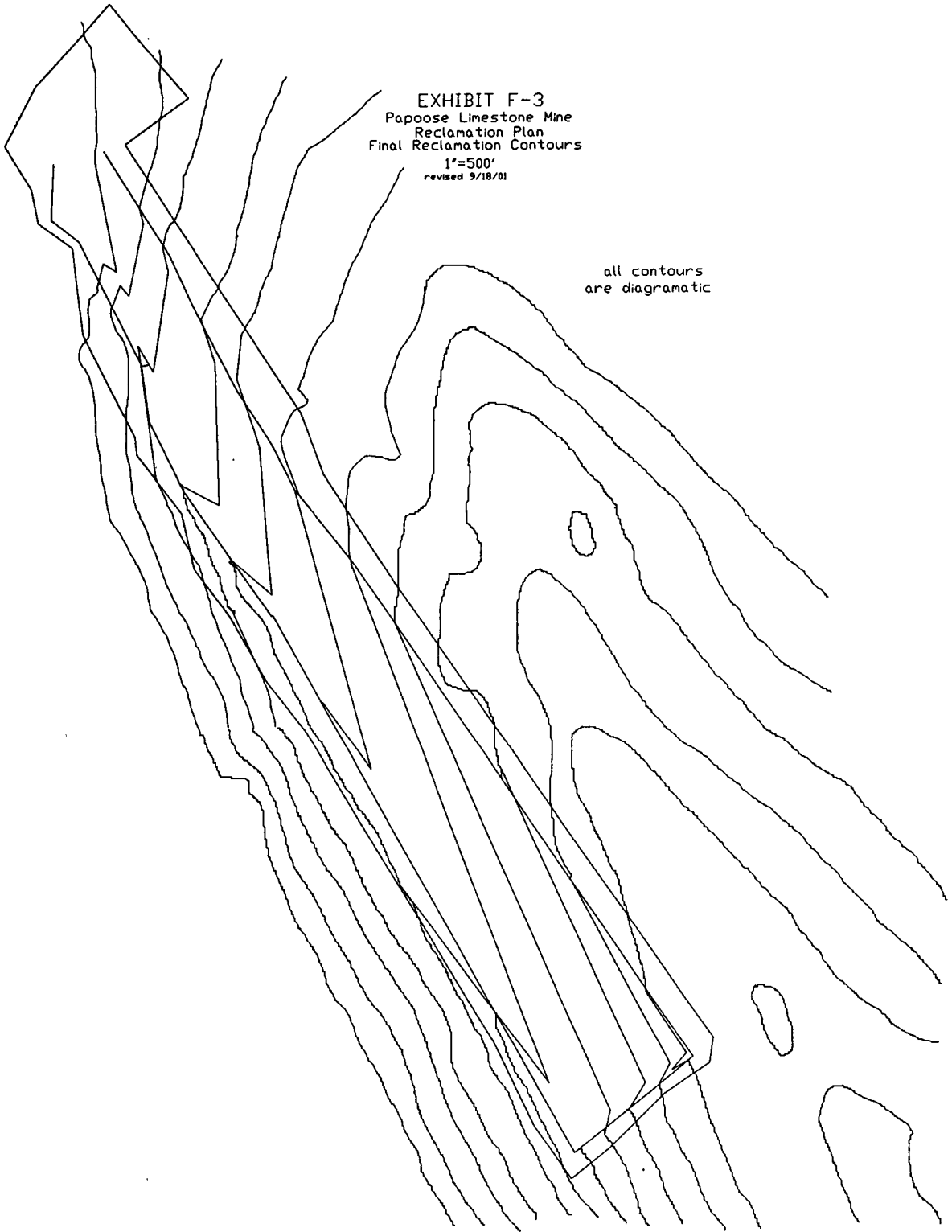


EXHIBIT G

Recommended Revegetation list for Cotter Corporation's Papoose Mine, M/037/084.

Common Name	*Rate lbs/acre (PLS)
Bluebunch Wheatgrass	2.0
ELLA	2.0
POAM	0.5
Bozoisky Russian Wild Rye	1.5
Indian Ricegrass	2.0
Ladak Alfalfa	0.5
Lewis Flax	0.5
Palmer Penstemon	0.5
Small Burnett	1.0
Wyoming Big Sage	0.2
Fourwing Saltbrush	2.0
Rubber Rabbitbrush	0.5
Forage Kochia	0.5
Rocky Mountain Penstemon	0.5
Total pounds per acre	14.2

*Rate is recommended for broadcast seeding. If drill seeded, reduce rate by 1/3.

Prepared by DOGM on September 13, 2001

